

REMARKS

SECTION 101 REJECTIONS

Claims 11-23 were rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter because the specification defines “computer-readable medium” as including “carrier waves,” which were said to not fall within one of the four statutory classes of 35 U.S.C. §101.

With the present amendment, claim 11 has been amended to change “computer-readable medium having” to “computer-readable storage medium storing.” In the specification on page 6, line 30 to page 7, line 2, computer-readable media was said to comprise computer storage media and communication media. Computer storage media was further said to include RAM, ROM, EEPROM, flash memory other memory technology, CD-ROM, digital versatile disks (DVD), or other optical disk storage, magnetic cassettes, magnetic tape, magnetic disk storage or other magnetic storage devices, or other media which can be used to store the desired information and which can be accessed by computer 100. (See page 7, lines 7-15). Communication media, on the other hand, were said to include instructions and data structures in a modulated data signal such as a carrier wave or other transport mechanism. (See page 7, lines 15-20). Thus, in the specification, a distinction is made between computer-readable storage media and computer-readable communication media with computer-readable storage media being directed to tangible computer-readable media and communication media said to include carrier waves. Since a computer-readable storage medium is directed to a tangible computer-readable medium and not carrier waves, the amendments to claim 11 exclude communication media, such as carrier waves, and thus make claim 11 and claims 12-23, which depend therefrom, statutory.

SECTION 102 REJECTIONS

CLAIMS 1-10

In the Office Action, claims 1-5 and 8-10 were rejected under 35 U.S.C. §102(b) as being anticipated by Accardi et al. (U.S. Patent Publication 2002/0002455, hereinafter Accardi). Claims 6 and 7 were objected to for depending on a rejected base claim but were

indicated as being allowable if rewritten in independent from to include all of the limitations of the base claim and any intervening claims.

With the present amendment, claim 1 has been amended to include the limitations of claim 6 and claim 6 has been canceled. As such, claim 1 now represents claim 6 rewritten in independent from. Claim 7 has been amended to depend from claim 1 instead of claim 6.

In light of the indication of allowability for claim 6, claim 1 as amended and claims 2-5 and 7-10, which depend therefrom, are in form for allowance.

CLAIMS 11-23

Claims 11-15 and 19-23 were rejected under 35 U.S.C. §102(b) as being anticipated by Accardi.

As amended, claim 11 is directed to a computer-readable storage medium storing computer-executable instructions for performing steps that include defining a random variable as a function of a signal-to-noise ratio variable. A mean for a distribution of the signal-to-noise ratio variable is determined based on the defined function. The mean is used to determine an estimate of a value for the signal-to-noise ratio variable for a frame of an observed signal.

Claim 11 is not shown or suggested in Accardi. In particular, Accardi does not use a mean for a distribution of a signal-to-noise ratio variable to determine an estimate of a value for the signal-to-noise ratio variable for a frame of an observed signal. In the Office Action, paragraph 19 of page 2 of Accardi was cited as showing the estimate of a signal-to-noise ratio. In paragraphs 19 and 20 of Accardi, two separate signal-to-noise ratios are defined. One is an a-posteriori signal-to-noise ratio, which is simply estimated by taking the amplitude of the input noisy speech signal and dividing it by a noise estimate. The other signal-to-noise ratio is the a-priori signal-to-noise ratio which is estimated in EQ. 16 as a linear combination of an estimate formed by dividing the calculated amplitude of the clean speech at a previous frame by the noise estimate at the previous frame and an estimate of the signal-to-noise ratio formed by subtracting one from the a-posteriori signal-to-noise ratio for the current frame. Neither of these terms uses a mean of the a-priori signal-to-noise ratio to determine a value for the a-priori signal-to-noise ratio. Thus, Accardi is not using the mean for a distribution of a signal-to-noise ratio variable to

determine a value for the signal-to-noise ratio variable. Instead, it is calculating signal-to-noise ratio values either based on a noisy input signal or based on an estimate of a clean speech signal at a previous frame and an a-posteriori signal-to-noise ratio for a current frame. This is substantially different from the invention of claim 11 where a mean of a distribution of a signal-to-noise ratio variable is used to determine an estimate of a value for the signal-to-noise ratio variable.

Since Accardi does not show or suggest using a mean of a distribution of a signal-to-noise ratio variable to determine an estimate of a value for the signal-to-noise ratio variable, it does not show or suggest the invention of claim 11 or claims 12-23, which depend therefrom.

CLAIM 24

Claim 24 represents former claim 16 rewritten in independent form. In the Office Action, claim 16 was only rejected under 35 U.S.C. §101. Claim 24 corrects the 101 problems to former claim 16 and represents claim 16 in independent form. As such, claim 24 is believed to be in form for allowance.


CONCLUSION

In light of the above remarks, claims 1-5 and 7-24 are in form for allowance. Reconsideration and allowance of the claims is respectfully requested.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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